

**IN THE UNITED STATES DISTRICT COURT
FOR THE SOUTHERN DISTRICT OF TEXAS
HOUSTON DIVISION**

HALLIBURTON ENERGY SERVICES,
INC.,

Plaintiff,

V.

GRANT PRIDECO, INC. REEDHYCALOG,
UK, LTD., REEDHYCALOG, LP, NOV
INC.,

Defendants.

Civil Action No. 4:23-CV-01789

NT PRIDECO, INC. REEDHYCALOG, §
TD., REEDHYCALOG, LP, NOV §
§
§
Defendants. §

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****All emphasis added and internal quotation marks omitted unless otherwise indicated****

LIST OF EXHIBITS

EXHIBIT	DESCRIPTION
1	Declaration of G. Polins authenticating exhibits submitted with Motion. FILED UNDER SEAL
2	November 22, 2024 Non-Infringement Expert Report of John P. Hayes. FILED UNDER SEAL
3	ReedHycalog-Halliburton Patent Cross-License Agreement, bearing Bates stamp NOV_00002137. FILED UNDER SEAL
4	NOV's Complaint for Patent Infringement, C.A. No. 6:06-cv-222, Dkt. 1
5	NOV's Second Amended Complaint for Patent Infringement, C.A. No. 6:06-cv-251, Dkt. 82
6	ReedHycalog-Uterra Patent Cross License Agreement, bearing Bates stamp NOV_00003259. FILED UNDER SEAL
7	Excerpts from the October 1, 2024 deposition of Philip A. Choyce. FILED UNDER SEAL
8	Excerpts from the September 30, 2024 deposition of Douglas C. Grijalva. FILED UNDER SEAL
9	Excerpts from the September 13, 2024 deposition of Michael E. Reeves. FILED UNDER SEAL
10	October 22, 2024 Opening Expert Report of John P. Hayes. FILED UNDER SEAL
11	NOV's First Amended Responses and Objections to Plaintiff Halliburton's First Set of Interrogatories (Nos. 1–2), dated September 21, 2023
12	Plaintiff Halliburton's Second Set of Interrogatories to NOV (Nos. 3–5), dated September 1, 2023
13	Excerpts from NOV's Responses and Objections to Plaintiff Halliburton's Second Set of Interrogatories (Nos. 3–5), dated October 9, 2023
14	September 11–17, 2019 Email Chain Between NOV Employees, bearing bates stamp NOV_00079405. FILED UNDER SEAL
15	Excerpts from Defendant's First Amended Responses and Objections to Plaintiff Halliburton Energy Services, Inc.'s First Set of Requests for Admission, dated October 14, 2024
16	<i>Bradley Corp. v. Lawler Manufacturing Co.</i> , 2020 WL 7027875 (S.D. Ind. Nov. 30, 2020)
17	<i>Goughnour v. Hayward Baker, Inc.</i> , 2018 WL 265588 (N.D. W. Va. Jan. 2, 2018)
18	<i>Jackson v. Mizuho Orthopedic Sys., Inc.</i> , 2013 WL 12291776, (W.D. Mo. Jan. 9, 2013)

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21	<i>Twin Rivers Eng'g, Inc. v. Fieldpiece Instruments, Inc.</i> , 2018 WL 6038277, at *12 (C.D. Cal. Apr. 24, 2018)
22	<i>XY, LLC v. Trans Ova Genetics, LC</i> , 2020 WL 2128739 (D. Colo. May 5, 2020)

TABLE OF ABBREVIATIONS

ABBREVIATION	DESCRIPTION
Depth Patents	U.S. Patent Nos. 6,544,308 (“308 Patent”); 6,562,462 (“462 Patent”); 6,585,064 (“064 Patent”); 6,589,640 (“640 Patent”); 6,592,985 (“985 Patent”); 6,739,214 (“214 Patent”); 6,749,033 (“033 Patent”); and 6,797,326 (“326 Patent”)
Halliburton	Plaintiff Halliburton Energy Services, Inc.
“Halliburton Patent License” or the “Patent License”	May 30, 2008 ReedHycalog-Halliburton Patent Cross-License Agreement (Ex. 3)
Impact Strength Patent	U.S. Patent No. 6,601,662 (“662 Patent”)
NOV	Defendants Grant Prideco, Inc., ReedHycalog UK, Ltd., ReedHycalog, LP, and NOV Inc.
PCD	polycrystalline diamond
PDC	polycrystalline diamond compact
Thermal Characteristic Patents	U.S. Patent Nos. 6,861,098 (“098 Patent”); 6,861,137 (“137 Patent”); and 6,878,447 (“447 Patent”)

I. STATEMENT OF THE ISSUES TO BE RULED UPON BY THE COURT¹

Issue: Whether the royalty payments required by the Halliburton Patent License, under NOV’s interpretation of the license, are unenforceable under the Supreme Court’s decision in *Brulotte v. Thys Co.* because they require Halliburton to pay royalties for practicing NOV’s expired patents. 379 U.S. 29, 31, 32 (1964) (“[W]e conclude that a patentee’s use of a royalty agreement that projects beyond the expiration date of the patent is unlawful *per se*.”). A district court’s grant of summary judgment is reviewed *de novo*. *Boudreax v. Swift Transp. Co.*, 402 F.3d 536, 540 (5th Cir. 2005).

II. SUMMARY OF THE ARGUMENT

The dispute between NOV and Halliburton centers on the royalty obligations of the Halliburton Patent License, signed by NOV and Halliburton in 2008. NOV contends that Halliburton owes royalties under the Patent License for selling or renting shallow or deep leached² PDC cutters regardless of whether Halliburton uses any unexpired patent, which the Patent License calls “Licensed RH Patents.” Halliburton contends that the Patent License only requires royalty payments for selling or renting shallow or deep leached PDC cutters that use an unexpired Licensed RH Patent. This Court need not wade into which interpretation is correct because, assuming that NOV’s interpretation is correct for the purposes of this summary judgment motion,³ the Patent License would be unenforceable under *Brulotte v Thys Co.*, 379 U.S. 29 (1964), which forbids patentees from extending their patent monopolies past patent expiration.

NOV’s interpretation of the Patent License renders it unenforceable under *Brulotte* for two independent reasons. **First**, it is undisputed that under NOV’s view, the trigger for deep

¹ This case and C.A. No. 4:23-cv-00730 were consolidated for discovery but not for summary judgment or trial. However, Halliburton notes for the benefit of the Court that the *Brulotte* motion concurrently filed in the ’730 Case is substantially identical to this motion.

² Leaching is how a catalyzing agent, often cobalt, is removed. Ex. 2 ¶¶ 71–72.

³ Under Halliburton’s interpretation, there is no *Brulotte* problem, which only reinforces why Halliburton’s interpretation is correct. To be clear, Halliburton disputes NOV’s interpretation, but will assume NOV’s interpretation for purposes of this summary judgment motion only.

leached royalties is practicing the elements of a now-expired patent. Indeed, the undisputed evidence shows that all deep leached cutters necessarily practice at least one of NOV’s so-called Depth Patents, which are now expired.⁴ Thus any royalties owed for selling or renting deep leached PDC cutters are royalties paid for the use of *expired* patents. *Brulotte* forbids this, and numerous courts have followed its dictate. **Second**, it is undisputed that Halliburton does not practice any unexpired Licensed RH Patent, and thus, NOV’s interpretation of the Patent License means that Halliburton would be paying royalties for post-expiration use of the *expired* Licensed RH Patents, which is similarly forbidden by *Brulotte*.

As the Supreme Court held in *Brulotte*, if patentees were permitted to charge royalties for post-expiration use of a patent, “the free market visualized for the post-expiration period would be subject to monopoly influences that have no proper place there.” 379 U.S. at 32–33. The reasoning behind *Brulotte* is sound: the government interferes with the free market by granting a time-limited monopoly in the form of a patent (20 years from earliest application), and patentees cannot extend their government-gifted monopoly and collect royalties on patented technology beyond the term set forth by Congress. Indeed, the *quid pro quo* of the patent system is that the public (and the free market) is permitted free access to the patented technology upon patent expiration. “The [*Brulotte*] decision is simplicity itself to apply. A court need only ask whether a licensing agreement provides royalties for post-expiration use of a patent. If not, no problem; if so, no dice.” *Kimble v. Marvel Ent., LLC*, 576 U.S. 446, 459 (2015).

That is exactly the case here. The public is free to use the technology embodied in NOV’s expired patents, yet NOV seeks to disrupt the free market by requiring Halliburton to continue to pay royalties on this now-expired (and public) technology. Given the undisputed facts, NOV’s

⁴ This is consistent with NOV’s statements over two decades contending that deep leaching required a license to its Depth Patents and that NOV patented deep leaching. *See infra* §§ IV.A.

actions violate *Brulotte*, and this Court should hold that the Patent License is unenforceable.

Halliburton paid over [REDACTED] in royalties to NOV for the use of NOV's deep and shallow leaching patents. Ex. 1 ¶ 23. Once those patents expired, NOV got greedy and concocted an interpretation of the Patent License that extended its monopoly. While that interpretation is contrary to the plain language of the Patent License, the Court can moot the parties' dispute regarding the contractual language by holding that *Brulotte* does not permit NOV's interpretation to stand. The Court should hold that the undisputed facts establish that the Patent License is unenforceable under *Brulotte* and grant Halliburton's motion for partial summary judgment.

III. STATEMENT OF THE NATURE AND STAGE OF THE PROCEEDINGS

The parties' dispute stems from a 2008 Patent License that settled patent infringement litigation between NOV and Halliburton. *See* Ex. 3. Since signing the Patent License, Halliburton paid more than [REDACTED] in royalties to NOV. Ex. 1 ¶ 23.

On October 22, 2021, the date the last Depth Patent expired, Halliburton's obligation to pay royalties to NOV ended. On May 15, 2023, Halliburton filed a complaint seeking, *inter alia*, a declaration that it no longer owes royalties to NOV under the Patent License and declarations of non-infringement of all unexpired United States patents purportedly subject to the Patent License. Dkt. 1, Counts I–III. NOV moved to dismiss Halliburton's complaint, but the Court denied NOV's motion. Dkt. 49. NOV subsequently filed an answer to Halliburton's complaint, along with counterclaims. Dkt. 79.

Halliburton filed a motion for judgment on the pleadings on Count IV of Halliburton's complaint, which is pending before the Court. Dkt. 59. NOV filed a motion for partial summary judgment on Count V of Halliburton's complaint, which is also pending before the Court. Dkt. 77. Fact discovery closed on October 8, 2024, and expert discovery closed on December 17, 2024. Dkt. 119.

IV. BACKGROUND

A. NOV Applied for and Received Patents on Deep and Shallow Leaching and then Sued the Industry, Including Halliburton

Beginning in 2001, ReedHycalog filed for, and eventually obtained, patents on leaching technology relating to PDC cutters used in drill bits. From 2006 to 2008, ReedHycalog and Grant Prideco⁵ initiated three patent infringement lawsuits against drill bit and cutter manufacturers, including Halliburton. In those lawsuits, NOV asserted that Halliburton infringed 12 patents. Ex. 4 ¶¶ 13, 17, 21, 25; Ex. 5 ¶ 44. NOV split these 12 Core Patents into three groups: the Depth Patents; the Impact Strength Patent; and the Thermal Characteristic Patents. Ex. 3 §§ 2.21–22; Ex. 6 §§ 2.20–21, 2.24.

NOV took the position that any shallow leached cutter, *i.e.*, any PDC cutter leached to a depth less than 0.1 mm, necessarily infringed the Impact Strength Patent and Thermal Characteristic Patents, and any deep leached cutter, *i.e.*, any PDC cutter leached to a depth greater than 0.1 mm, necessarily infringed those patents, plus the eight additional Depth Patents.

See, e.g., Ex. 7 at 38:6–25 [REDACTED]

[REDACTED]

[REDACTED]; Ex. 8

at 36:21–24, 44:22–47:1 [REDACTED]

[REDACTED]

[REDACTED]; Ex. 9 at

117:23–118:3, 125:19–24 [REDACTED]

[REDACTED]

[REDACTED]

⁵ NOV acquired ReedHycalog and Grant Prideco while these lawsuits were pending.

[REDACTED].

B. The “Licensed Halliburton Drill Bit” and “Leached Cutter” Definitions

To settle various litigations, including the litigation alleging infringement of the 12 Core Patents, Halliburton and NOV signed the Patent License at issue. In the Patent License, Halliburton agreed to license a defined set of patents called “Licensed RH Patents.” Ex. 3 § 2.05. The Licensed RH Patents included the 12 Core Patents, as well as certain other patents in the area of leaching. *Id.* § 2.05, Ex. C.

As part of the exchange, Halliburton agreed to pay NOV certain royalties. In its answer and throughout this litigation, NOV has taken the position that “the defining criteria for determining whether a product is a royalty-bearing ‘Licensed Halliburton Drill Bit’ or ‘cutter’ is based on certain articulated physical characteristics” identified in Section 6.01(b) of the Patent License regardless of whether the licensed patents were used.⁶ Dkt. 79 ¶ 106. Section 6.01(b) is reproduced below, and sets forth one royalty rate [REDACTED] for “Shallow Leached Cutters” and another royalty rate [REDACTED] for “Deep Leached Cutters”:

Beginning on July 1, 2008, Halliburton will owe to ReedHycalog, on a quarterly basis, a go-forward royalty based upon Halliburton’s Net Price of Licensed Halliburton Drill Bits invoiced on a worldwide basis to a third party customer during the reported quarter. In the event Licensed Halliburton Drill Bits invoiced to a customer are returned as the result of a defect or customer return such that Halliburton does not receive revenue with respect to the invoiced Licensed Halliburton Drill Bits, Halliburton shall apply a credit for the amount of royalty paid to ReedHycalog, if any, regarding such Licensed Halliburton Drill Bits. The Parties agree that the royalties Halliburton is to pay to ReedHycalog depends upon the Leach depth of the PDCs Halliburton employs on its Licensed Halliburton Drill Bits:

(I) for Licensed Halliburton Drill Bits that contain any Shallow Leached Cutter but not any Deep Leached Cutter, the royalty rate will be [REDACTED] of Halliburton’s Net Price of such Licensed Halliburton Drill Bits; and

⁶ Halliburton does not agree with NOV’s view, as the Patent License conditions royalty payments on use of an unexpired licensed patent. However, for purposes of this motion only, Halliburton will assume NOV’s view of the Patent License.

(2) for Licensed Halliburton Drill Bits that contain any Deep Leached Cutter, the royalty rate will be █ of Halliburton's Net Price of such Licensed Halliburton Drill Bits.

Ex. 3 § 6.01(b). The provisions of Section 6.01(b) are based on the terms "Licensed Halliburton Drill Bit," "Shallow Leached Cutter," and "Deep Leached Cutter," all of which are defined in the Patent License. *Id.* §§ 2.04, 2.18–19. Specifically, the Patent License states that "'Shallow Leached Cutter' means a PDC cutter in which ALL leached regions of the cutter have a leach depth less than 0.1 mm measured normal to the nearest working surface," and "'Deep Leached Cutter' means a PDC cutter having ANY leached region with a leach depth equal to or greater than 0.1 mm measured normal to the nearest working surface." *Id.* §§ 2.18–19.

The Patent License defines "Licensed Halliburton Drill Bit" consistent with the Shallow Leached Cutter and Deep Leached Cutter definitions:

"Licensed Halliburton Drill Bits" means any and all PDC Bits (as defined herein) manufactured, sold, used, rented, leased and/or marketed by or for Halliburton and/or its Affiliates or Subsidiaries, containing at least one PCD element and/or PDC Cutter (which are considered separately licensed as well) which further contains:

- (a) a non-Leached region that is not substantially free of catalyzing material; and
- (b) any one or more of the following characteristics:
 - (i) a Leached region that is substantially free of catalyzing material to a depth less than 0.1 mm from the Top Working Surface (as measured in a direction perpendicular to the outer surface of the Top Working Surface (See Exhibit A)), which may (but is not required to) further have a Bevel Working Surface and/or Side Working Surface that has a Leached region that is substantially free of catalyzing material to a depth less than 0.1 mm from the Bevel Working Surface and/or Side Working Surface (as measured in a direction perpendicular to the outer surface of the Bevel or Side Working Surfaces, respectively (See Exhibit A)); or
 - (ii) a Bevel Working Surface and/or Side Working Surface that has a Leached region that is substantially free of catalyzing material to a depth less than 0.1 mm from the Bevel Working Surface and/or Side Working Surface (as measured in a direction perpendicular to the outer surface of the Bevel or Side Working Surfaces (See Exhibit A)); or

(iii) a Leached region that is substantially free of catalyzing material to a depth equal to or greater than 0.1 mm from the Top Working Surface (as measured in a direction perpendicular to the outer surface of the Top Working Surface (See Exhibit A)); or

(iv) a Bevel Working Surface and/or Side Working Surface that has a Leached region that is substantially free of catalyzing material to a depth greater than or equal to 0.1 mm from the Bevel Working Surface and/or Side Working Surface (as measured in a direction perpendicular to the outer surface of the Bevel or Side Working Surfaces (See Exhibit A)).

Ex. 3 § 2.04. As can be seen in comparing the Shallow Leached Cutter definition to the Licensed Halliburton Drill Bit definition, subsections (b)(i) and (ii) of Licensed Halliburton Drill Bit reflect the Shallow Leached Cutter definition, *i.e.*, drill bits that are leached to 0.1 mm depth or less. Similarly, subsections (b)(iii) and (iv) of the Licensed Halliburton Drill Bit reflect the Deep Leached Cutter definition, *i.e.*, drill bits that are leached to 0.1 mm depth or greater.

C. Halliburton’s Expert Provided Unrebutted Testimony That Any Deep Leached Cutter Under § 6.02(b) of the Patent License Necessarily Practices Now-Expired Depth Patents

Consistent with NOV’s long-held position that any deep leached cutter infringed the Depth Patents, the language of the Patent License tracks patent claims found in NOV’s Depth Patents. Halliburton’s technical expert, John Hayes, an engineer with a Master of Science in petroleum engineering and over 40 years’ experience in the field, analyzed the language of the Patent License and the Depth Patents. Based on his technical experience in the drilling and drill bit industry, Mr. Hayes opined that “a cutter that meets the definition of ‘Deep Leached Cutter’ in the [Patent License] or a cutter meeting categories (iii) or (iv) of ‘Licensed Halliburton Drill Bit’ in the [Patent License] necessarily practices one or more claims of one or more of the expired Depth Patents.” Ex. 10 ¶ 102; *see also id.* ¶¶ 76–106.

To support his opinion, Mr. Hayes compared the definitions of Deep Leached Cutter and Licensed Halliburton Drill Bits to claim 1 of five of the Depth Patents. Ex. 10 ¶¶ 83–89, 102–06.

Mr. Hayes found that the Patent License's definition of Deep Leached Cutter and the deep leached cutter portions of the Licensed Halliburton Drill Bit definition track claim 1 of each of these Depth Patents. *Id.* To visually illustrate the fact that the definitions track each other, Mr. Hayes conducted a side-by-side comparison of the Patent License's definitions and the claim language, and used “[b]lue highlighting [to] denote[] language referring to PDC cutters”; “[g]reen highlighting [to] denote[] language referring to leaching”; and “purple highlighting [to] denote[] language referring to leach depth.” *Id.* ¶ 105. Mr. Hayes's analysis for the definitions of Deep Leached Cutter and Licensed Halliburton Drill Bit as compared to one of the expired Depth Patents, the '640 Patent, is reproduced below:

Definition of Deep Leached Cutter	Expired '640 Patent, Claim 1
<p>“Deep Leached Cutter” means a PDC cutter having ANY leached region with a leach⁷ depth equal to or greater than 0.1 mm measured normal to the nearest working surface</p>	<p>A polycrystalline diamond element comprising a body with a working surface, wherein a first volume of the body remote from the working surface contains a catalyzing material, a second volume of the body adjacent to the working surface is substantially free of the catalyzing material, wherein the second volume extends to a depth of at least about 0.1 mm from the working surface.</p>
<p>Definition of Licensed Halliburton Drill Bit</p> <p>“Licensed Halliburton Drill Bits” means any and all PDC Bits . . . , containing at least one PCD element and/or PDC Cutter (which are considered separately licensed as well) which further contains:</p> <p>(a) a non-Leached region that is not substantially free of catalyzing material; and</p>	<p>Expired '640 Patent, Claim 1</p> <p>A polycrystalline diamond element comprising a body with a working surface,</p> <p>wherein a first volume of the body remote from the working surface contains a catalyzing</p>

⁷ The Patent License defines “Leach, Leached, Leaching” as “to deplete catalyzing material from a first volume or region of a PCD element adjacent to a working surface of the PCD element while permitting catalyzing material to remain in a second volume or region of the PCD element. Leaching involves depletion of catalyzing material through an additional process (e.g., placement of a PCD element in an acid bath) beyond conventional finishing processes (e.g., grinding, polishing, lapping or grit blasting a PCD element).” Ex. 3 § 2.03.

<p>(b) any one or more of the following characteristics:</p> <p>...</p> <p>(iii) a Leached region that is substantially free of catalyzing material to a depth equal to or greater than 0.1 mm from the Top Working Surface (as measured in a direction perpendicular to the outer surface of the Top Working Surface (See Exhibit A)); or</p> <p>(iv) a Bevel Working Surface and/or Side Working Surface that has a Leached region that is substantially free of catalyzing material to a depth greater than or equal to 0.1 mm from the Bevel Working Surface and/or Side Working Surface (as measured in a direction perpendicular to the outer surface of the Bevel or Side Working Surfaces (See Exhibit A)).</p>	<p>material, a second volume of the body adjacent to the working surface is substantially free of the catalyzing material,</p> <p>wherein the second volume extends to a depth of at least about 0.1 mm from the working surface.</p>
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Mr. Hayes performed a similar analysis for other expired Depth Patents and established that claim 1 of these other patents correspond to the Deep Leached Cutter provisions of the Patent License. Ex. 10 ¶¶ 83–89, 102–06. Based on this comparison and his expertise, Mr. Hayes concluded that any cutter that met the definition of Deep Leached Cutter or the deep leached cutter provision of Licensed Halliburton Drill Bit would necessarily practice claim 1 of each of the Depth Patents analyzed in his report. *Id.* Thus, under NOV’s view, the trigger for deep leached royalties requires practicing a now-expired patent. Though Mr. Hayes offered this opinion in an opening report, NOV did not provide any expert opinion that rebutted or disagreed with Mr. Hayes’s analysis that a cutter meeting the definition of Deep Leached Cutter or categories (iii) or (iv) of Licensed Halliburton Drill Bit necessarily practices one or more of NOV’s Depth Patents.

D. Halliburton Does Not Infringe Any Unexpired Licensed RH Patent

As of October 22, 2021, NOV has admitted that all of the 12 Core Patents, including all

of the Depth Patents, have expired. *See, e.g.*, Dkt. 65 at 8; Ex. 11 at 5. NOV contends there are seven unexpired patents that qualify as Licensed RH Patents.⁸ Ex. 11 at 5. Halliburton sought declarations of non-infringement for the two U.S. patents. Dkt. 1, Counts I-II. During discovery, NOV did not submit any evidence, expert or otherwise, that Halliburton infringes any of the unexpired patents. Indeed, NOV admitted that it “does not currently have a basis on which to contend infringement or non-infringement of the Patents-in-[S]uit⁹ by any of [Halliburton]’s products.” Ex. 13 at 5. In contrast, Halliburton submitted the expert report of Mr. Hayes, a petroleum engineer with 40-plus years of experience with drilling and drill bits, establishing that Halliburton did not infringe any of the unexpired patents. Ex. 2.

V. LEGAL STANDARD

A. Summary Judgment Standard

Summary judgment is proper if there is no genuine dispute as to any material fact and the movant is entitled to judgment as a matter of law. Fed. R. Civ. P. 56(a). Facts and reasonable inferences are viewed in the light most favorable to the nonmovant, but “[s]ummary judgment may not be thwarted by conclusional allegations, unsupported assertions, or presentation of only a scintilla of evidence.” *Hemphill v. State Farm Mut. Auto. Ins. Co.*, 805 F.3d 535, 538 (5th Cir. 2015). “Only disputes over facts that might affect the outcome of the suit under the governing law will properly preclude the entry of summary judgment.” *Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242, 248 (1986). Where the nonmoving party bears the burden of proof at trial, the moving party may demonstrate that it is entitled to summary judgment “by simply pointing to an absence of evidence to support the nonmoving party’s case.” *Boudreaux*, 402 F.3d at 544.

⁸ For avoidance of doubt, Halliburton disputes that these patents qualify as Licensed RH Patents, but that dispute is immaterial to the present motion.

⁹ The “Patents-in-Suit” are defined to include “any patent NOV contends was an unexpired Licensed RH Patent as of October 23, 2021.” Ex. 12 at 2.

B. The *Brulotte* Doctrine

Any attempt to project the grant of a patent monopoly “after the patent expires, whatever the legal device employed, runs counter to the policy and purpose of the patent laws” and is unenforceable. *Brulotte*, 379 U.S. at 31, 34. “[*Brulotte*] is simplicity itself to apply. A court need only ask whether a licensing agreement provides royalties for post-expiration use of a patent. If not, no problem; if so, no dice.” *Kimble*, 576 U.S. at 459. “*Brulotte* was based on federal policy favoring limited durations for patent monopolies. Royalty obligations that conflict with this policy—by restricting a patent licensee’s use of inventions after their licensed patents expire—are unenforceable due to ‘obstacle’ preemption. If a royalty obligation is calculated based on activity requiring such post-expiration use, it restricts such use on its face and *Brulotte* applies.” *Ares Trading S.A. v. Dyax Corp.*, 114 F.4th 123, 137 (3d Cir. 2024).

VI. ARGUMENT

Congress established a 20-year patent term, and NOV has received the benefit of that full term for the 12 Core Patents at issue in the prior litigation by receiving royalties from Halliburton and other licensees based on a royalty provision that undisputedly tracks the claims of certain of the 12 Core Patents. The last of those 12 Core Patents expired on October 22, 2021, yet NOV contends it can continue to charge Halliburton royalties based on its use of that now-expired technology. Assuming all reasonable facts in NOV’s favor for purposes of this motion, including its interpretation of the royalty provisions of the Patent License, there is no genuine dispute that NOV’s attempt to charge Halliburton for post-expiration use of the expired patents renders the Patent License unenforceable under *Brulotte* for two reasons: (1) under NOV’s interpretation, the Patent License is unenforceable for unlawfully conditioning Halliburton’s royalty payments on practicing NOV’s expired patents; and (2) there is no genuine dispute that Halliburton does not infringe any unexpired Licensed RH Patent, meaning that under NOV’s

interpretation, NOV would be collecting royalties for post-expiration use of expired patents.

A. NOV's Interpretation Renders the License Unenforceable by Requiring Halliburton to Pay Royalties for Practicing NOV's Expired Patents

Assuming NOV's interpretation of the Patent License were to apply, there is no genuine dispute that the Patent License conditions Halliburton's royalty payment obligations on post-expiration use of one or more of the Depth Patents. As the Third Circuit recently confirmed, *Brulotte* renders unenforceable royalty payment obligations "calculated based on activity requiring [] post-expiration use." *Ares Trading*, 114 F.4th at 137. Other courts have reached the same conclusion, and this Court should do so too for the same reasons.

1. Assuming NOV's Interpretation Were to Apply, There Is No Genuine Dispute That the Patent License Conditions Royalty Payments on Practicing NOV's Expired Patents

There is no genuine dispute that, under NOV's interpretation of the Patent License, the Patent License conditions royalties on practicing the claims of an expired patent, exemplified by claim 1 of the now-expired '640 Patent. NOV's position is that "the defining criteria for determining whether a product is a royalty-bearing 'Licensed Halliburton Drill Bit' or 'cutter' is based on certain articulated physical characteristics" identified in Section 6.02(b) of the Patent License, whether or not an unexpired patent is used. Dkt. 79 ¶ 106.

Mr. Hayes conducted a thorough analysis of the Depth Patents and the definitions of Deep Leached Cutter and Licensed Halliburton Drill Bit and concluded that "a cutter that meets the definition of 'Deep Leached Cutter' in the [Patent License] or a cutter meeting categories (iii) or (iv) of 'Licensed Halliburton Drill Bit' in the [Patent License] necessarily practices one or more claims of one or more of the expired Depth Patents." Ex. 10 ¶ 102. NOV has never disputed this fact and has not provided any evidence to the contrary. This makes sense, as for nearly two decades NOV took the position that any and all deep leaching necessarily required a

license to the Depth Patents. *See supra* § IV.A; Ex. 14 at 405 [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED].

The '640 Patent, one of the expired Depth Patents, exemplifies this correspondence. Based on Mr. Hayes' undisputed opinion and NOV's interpretation of the Patent License, when Halliburton practices claim 1 of the expired '640 Depth Patent (below right), it will meet the definition of Licensed Halliburton Drill Bit (below left), thereby triggering a royalty payment.

Definition of Licensed Halliburton Drill Bit	Expired '640 Patent, Claim 1
<p>"Licensed Halliburton Drill Bits" means any and all PDC Bits . . . , containing at least one PCD element and/or PDC Cutter . . . which further contains:</p> <p>(a) a non-Leached region that is not substantially free of catalyzing material; and</p> <p>(b) (iii) a Leached region that is substantially free of catalyzing material to a depth equal to or greater than 0.1 mm from the Top Working Surface (as measured in a direction perpendicular to the outer surface of the Top Working Surface (See Exhibit A))</p>	<p>A polycrystalline diamond element comprising a body with a working surface,</p> <p>wherein a first volume of the body remote from the working surface contains a catalyzing material, a second volume of the body adjacent to the working surface is substantially free of the catalyzing material,</p> <p>wherein the second volume extends to a depth of at least about 0.1 mm from the working surface.</p>

The result is the same if the Patent License required Halliburton to pay royalties "for practicing claim 1 of the '640 Patent" or "for selling or renting a Deep Leached Cutter." In either situation, the Patent License requires payments for post-expiration use of a patent. In other words, there is no genuine dispute that under NOV's interpretation of the Patent License, the triggering event for royalties owed for selling or renting a deep leached PDC cutter is practicing a claim of an expired patent, e.g., claim 1 of the '640 Patent.

2. NOV’s Interpretation, which Requires Payments for the Use of One or More Expired Patents, Renders the Patent License Unenforceable

The United States Supreme Court’s decision in *Brulotte* forecloses NOV’s attempt to extract royalties from Halliburton for the use of NOV’s expired patents. In *Brulotte*, the Supreme Court held that “a patentee’s use of a royalty agreement that projects beyond the expiration date of the patent is unlawful *per se.*” 379 U.S. at 32. The Supreme Court reaffirmed *Brulotte*’s central holding in 2015: “A court need only ask whether a licensing agreement provides royalties for post-expiration use of a patent. If not, no problem; if so, no dice.” *Kimble*, 576 U.S. at 459. As NOV’s interpretation of the Patent License seeks to charge Halliburton royalties for “post-expiration use of a patent,” it is “no dice” under *Kimble* and *Brulotte*.

Courts have repeatedly confirmed that efforts to extract royalties for post-expiration use of a patent are impermissible under *Brulotte*. The Fifth Circuit weighed in on post-expiration use of a patent in *Pipkin v. FMC Corp.*, 427 F.2d 353 (5th Cir. 1970). There, the licensee manufactured, used, or sold machines that embodied inventions only claimed in expired patents. *Id.* at 357. After reviewing the license agreement, the Fifth Circuit held that “[a]bsent a clear expression to the contrary in the licensing agreement for the use of the invention embodied in a patent, it will be presumed that the parties did not intend the licensee should pay royalties for such use after the expiration of the patent” and that construing the license agreement otherwise would violate *Brulotte*. *Id.*

Numerous other circuit and district courts have also found licensing agreements unenforceable under *Brulotte* for similarly extracting royalty payments for post-expiration use, like the Patent License does here. See, e.g., *Meehan v PPG Indus., Inc.*, 802 F.2d 881, 885 (7th Cir. 1986) (“Identical payments in the post-expiration period are ‘a telltale sign that the licensor was using the licenses to project its monopoly beyond the patent period.’” (quoting *Brulotte*, 379

U.S. at 32)); *Boggild v. Kenner Prods., Div. of CPG Prods. Corp.*, 776 F.2d 1315, 1319 (6th Cir. 1985) (holding that “the *Brulotte* rule of *per se* invalidity precludes enforcement of license provisions which were developed in anticipation of patent protection and which require royalty payments for use, sale or manufacture of a patented item beyond the life of the patent”); *Pitney Bowes, Inc. v. Mestre*, 701 F.2d 1365, 1367, 1373 (11th Cir. 1983) (“As in *Brulotte*, two provisions in the agreement suggest that the patentee used the leverage of his patent to project its monopoly beyond the 17-year patent period. First, the ‘exclusive rights’ granted under the agreement applied equally before and after expiration of the patent. . . . Second, the agreement required Pitney Bowes to pay royalties at the same rate and on the same basis after the patents expired that it paid while the patent was in effect.”); *Jackson v. Mizuho Orthopedic Sys., Inc.*, 2013 WL 12291776, at *20 (W.D. Mo. Jan. 9, 2013) (“To the extent Plaintiff attempts to enforce the Agreement beyond the life of the Patents, the Agreement is unenforceable under *Brulotte* because the Patents expired.”); *Outman v. W. Contracting Corp.*, 1979 WL 25052, at *5 (N.D. Iowa Nov. 14, 1979) (holding that license agreement expired when last incorporated patent expired and noting that “[t]his conclusion is reached by applying the holding of *Brulotte*”).

NOV has asserted that the Patent License is not subject to *Brulotte* because there are other, unexpired patents included in the Patent License. But *Brulotte* itself forecloses NOV’s argument. In *Brulotte*, “[t]he licenses issued to petitioners listed 12 patents . . . but only seven were incorporated into the machines sold to and licensed for use by petitioners.” *Brulotte*, 379 U.S. at 30. The Supreme Court found that extending royalties beyond the expiration of the seven patents ***actually used*** rendered that license unenforceable. *Id.* at 32–33.

Goughnour v. Hayward Baker, Inc., 2018 WL 265588 (N.D. W. Va. Jan. 2, 2018) similarly followed *Brulotte*’s ruling. In *Goughnour*, the licensor attempted to extract royalties

from the licensee for its use of a process embodying an expired patent, even though there were other, non-practiced patents still in existence that were subject to the license agreement. *Id.* at *6–7. Applying *Brulotte*, the court held that a license that required royalty payments for “one expired, utilized patent, and one living, unutilized patent application” would “permit [it] to revive an expired patent” and “violate long-settled law regarding the payment of royalty and/or licensing fees after the expiration of a patent.” *Id.* The patentee in *Goughnour* argued, like NOV here, that there was an “exception” in *Kimble* that permitted royalties until the “latest-running patent covered in the parties’ agreement expires.” *Id.* at *6. The *Goughnour* court rejected that as “dictum” in *Kimble*¹⁰ that “does not comport with the holding of *Brulotte*” and “contravene[d] well-settled law that ‘a projection of the patent monopoly after the patent expires is not enforceable.’” *Id.* (citing *Brulotte*, 379 U.S. at 32).

Bradley Corp. v. Lawler Manufacturing Co., 2020 WL 7027875 (S.D. Ind. Nov. 30, 2020) confronted a similar issue as presented in *Goughnour* and here and followed *Brulotte’s per se* rule. In *Bradley*, the licensor argued that royalties were owed through 2031, when the last patent subject to the agreement was to expire, while the licensee contended that its obligation to pay royalties ended in 2019 when the last licensed patent it practiced expired. *Id.* at *5. The licensor argued, like NOV here, that “the royalty provision comes within the exceptions outlined in *Kimble*” because “the royalty provision was structured to provide clarity as to which products were and were not royalty bearing, given that possible future coverage of the [unissued patent applications] w[ere] unknown at the time [the agreement] was signed.” *Id.* at *6. The court rejected the licensor’s reliance on the alleged *Kimble* “exception” because “when *Kimble* says that ‘royalties may run until the last-running patent covered in the parties’ agreement expires, . . .

¹⁰ *Kimble* involved a single patent, and thus did not address this scenario. 576 U.S. at 449–50.

it appears to assume that the licensee will be using or selling an apparatus or process that incorporates more than one of the licensor’s patents, so that such use or sale without permission will naturally infringe at least one patent until the latest-running patent expires.” *Id.* at *7 (quoting *XY, LLC v. Trans Ova Genetics, LC*, 2020 WL 2128739, at *6 (D. Colo. May 5, 2020)) (cleaned up). The *Bradley* court found—just like the *Goughnour* court—that the agreement there was unenforceable under *Brulotte* because “it is undisputed that . . . the royalty-bearing products explicitly identified in the License Agreement do not practice any unexpired patents encompassed” in the agreement. *Id.* NOV’s arguments fail for the same reasons similar arguments failed in *Brulotte*, *Goughnour*, and *Bradley*.

NOV has also asserted that the Patent License is not subject to *Brulotte* because it is supposedly a “package license” agreement akin to the agreement the Supreme Court approved in *Automatic Radio Manufacturing Co. v. Hazeltine Research, Inc.*, 339 U.S. 827 (1950), *overruled on other grounds sub nom. by Lear, Inc. v. Adkins*, 395 U.S. 653 (1969). In *Automatic Radio*, the parties entered into a license agreement in which one party obtained a ten-year license “covering a group of 570 patents and 200 applications” related to radio manufacturing in exchange for paying royalties on “a small percentage of petitioner’s selling price of complete radio broadcasting receivers.” *Id.* at 829. The Supreme Court held that “it is not per se a misuse of patents to measure the [payment of royalties] by a percentage of the licensee’s sales,” as opposed to use of a patent, and the petitioner in *Automatic Radio* was not “obligated to use respondent’s patents in the manufacture of its products.” *Id.* at 829, 834.

Automatic Radio does not apply. First, the Halliburton Patent License concerns a limited number of patents (only 23 U.S. patents and applications are listed in the Patent License itself, Ex. 3 at Ex. C) and is not the sort of fixed-term “package license” covering 700-plus patents and

patent applications like the license in *Automatic Radio*. Second, in *Automatic Radio*, there was no evidence that the royalty provision required use of an expired patent. Here, in contrast, there is no genuine dispute that the Licensed Halliburton Drill Bit provision tracks the claims of the *expired* patents, and that, as a result, the triggering event for royalties owed, under NOV’s interpretation, is the practicing of *expired* patents. This takes the Halliburton Patent License outside the confines of *Automatic Radio* and straight into the realm of *Brulotte*.

Brulotte’s holding is clear: using the leverage of an expired patent “to project [] royalty payments beyond the life of the patent is analogous to an effort to enlarge the monopoly of the patent by tieing [sic] the sale or use of the patented article to the purchase or use of unpatented ones.” *Brulotte*, 379 U.S. at 33. That is precisely what NOV is attempting to do here: extract royalty payments from Halliburton for its valueless and unused unexpired patents by tying them to the expired Depth Patents that Halliburton does use. *Brulotte* explicitly held this is an improper “assertion of monopoly power,” *id.*, and this Court should hold that NOV’s attempt to do so here is improper for the same reason.

B. Absent Evidence Halliburton Infringes an Unexpired Licensed RH Patent, Any Interpretation Requiring Royalty Payments Renders the Patent License Unenforceable Under *Brulotte*

Brulotte also forecloses NOV’s attempt to extract royalties from Halliburton under the Patent License for the independent reason that Halliburton does not infringe any unexpired Licensed RH Patent. Following the expiration of the last Core Patent on October 22, 2021, NOV has not (because it cannot) identified *any* evidence that Halliburton infringes an unexpired Licensed RH Patent. Indeed, NOV has affirmatively stated that it “does not currently have a basis on which to contend infringement or non-infringement of the Patents-in-[S]uit by any of [Halliburton]’s products” despite having access to (among other things) Halliburton’s technical documents, engineers, and supplier schematics during discovery. Ex. 13 at 5. NOV further

admitted that it is not aware of any entity—including Halliburton—that practices any claim of any unexpired Licensed RH Patent “because NOV has not conducted an infringement analysis of actual products or methods against one or more claims of [such patents].” Ex. 15 at 81–86.

In contrast to NOV’s failure to adduce even a scintilla of evidence that Halliburton infringes any Licensed RH Patent, Halliburton submitted unrebutted expert evidence from Mr. Hayes that Halliburton does not infringe the claims of any unexpired patent NOV contends is subject to the Patent License. Ex. 2 ¶¶ 19, 79, 108–83. Mr. Hayes analyzed hundreds of documents produced by Halliburton and its third-party suppliers to reach his opinions, including Halliburton’s internal documentation reflecting the instructions it provides to its third-party suppliers; images, schematics, and X-rays of Halliburton’s cutters showing their geometry; documents showing the target leach depth of Halliburton’s cutters; and testimony from a Halliburton’s PDC Technology Manager. *See, e.g., id.* ¶¶ 108–83, Exs. 1–2.

NOV did not submit a report by any technical expert in this matter or otherwise attempt to rebut Mr. Hayes’s analysis. To the extent NOV attempts to dispute Mr. Hayes’s opinions at summary judgment, NOV’s unsupported attorney argument is insufficient to raise a genuine dispute of material fact.¹¹ *Invitrogen Corp. v. Clontech Lab’ys, Inc.*, 429 F.3d 1052, 1068 (Fed. Cir. 2005) (“Unsubstantiated attorney argument regarding the meaning of technical evidence is no substitute for competent, substantiated expert testimony.”); *Ferring B.V. v. Barr Lab’ys, Inc.*, 437 F.3d 1181, 1193 (Fed. Cir. 2006) (“Conclusory allegations and attorney arguments are insufficient to overcome a motion for summary judgment.”).

NOV has asserted that Halliburton bears the burden to prove non-infringement. That is wrong. As the Supreme Court explained in *Medtronic*, regardless of whether the plaintiff brings

¹¹ Halliburton intends to file a motion for summary judgment of non-infringement in February, per the case schedule.

an infringement lawsuit or the defendant seeks a declaratory judgment of non-infringement, “the burden of proving infringement should remain with the patentee.” *Medtronic, Inc. v. Mirowski Fam. Ventures, LLC*, 571 U.S. 191, 199 (2014); *see also Twin Rivers Eng’g, Inc. v. Fieldpiece Instruments, Inc.*, 2018 WL 6038277, at *12 (C.D. Cal. Apr. 24, 2018) (finding patentee bears burden of proving infringement “even in declaratory judgment actions”); *Radware, Ltd. v. A10 Networks, Inc.*, 2014 WL 2738538, at *9 (N.D. Cal. June 11, 2014) (granting summary judgment on declaratory judgment counterclaims where patentee presented no evidence of infringement). This makes sense as it would be effectively impossible for the non-patent owner to “to negate every conceivable infringement theory.” *Medtronic*, 571 U.S. at 201.

It does not matter who bears the burden to show infringement or non-infringement because NOV has provided no evidence of infringement and Halliburton has provided evidence of non-infringement. Absent infringement of an unexpired patent, NOV’s interpretation that Halliburton owes royalties means those royalties could *only* be for practicing one or more *expired* patents, which is why the Patent License is unenforceable under *Brulotte*. That means NOV’s interpretation, which requires Halliburton to pay NOV royalties even though Halliburton does not practice any unexpired Licensed RH Patent, is an attempt to extract royalties for use of expired patents. As *Brulotte* does not permit that for all the reasons explained above, this Court should hold that there is no genuine dispute that the Patent License is unenforceable under *Brulotte*.

VII. CONCLUSION

For the foregoing reasons, Halliburton respectfully requests that the Court grant Halliburton’s motion and hold the Halliburton Patent License unenforceable under *Brulotte*.

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Respectfully submitted,

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CERTIFICATE OF SERVICE

I certify that on January 24, 2025, in accordance with the Federal Rules of Civil Procedure, a true and correct copy of the above and foregoing document was served on all registered counsel of record via the Court's PACER ECF system.

/s/ Ryan Kane, P.C.
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